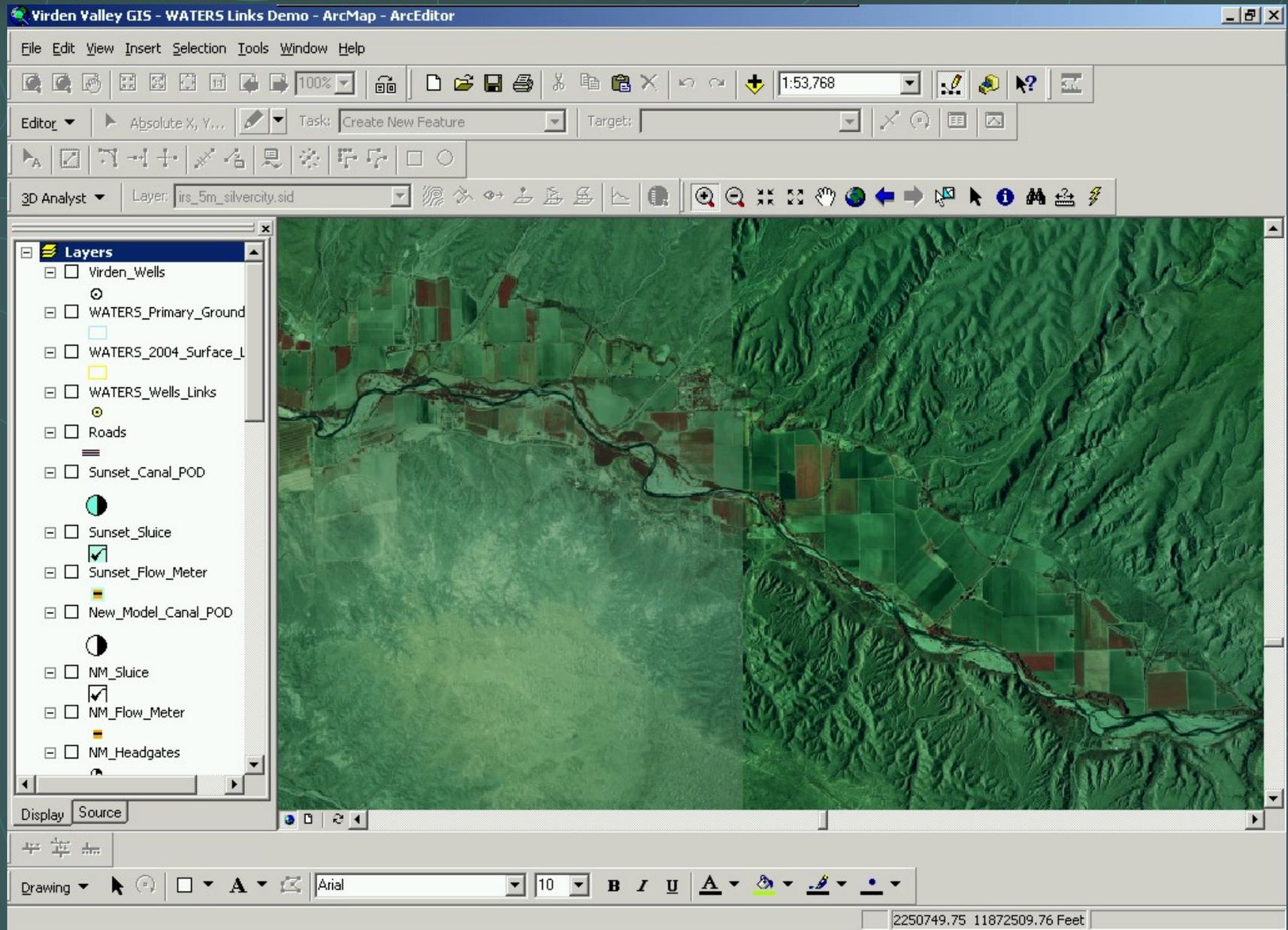


Virден Valley E-GIS

A New Approach to a Historic Process
New Mexico Office of the State Engineer
By: Tink Jackson – Deputy Director
District 3



Aerial Photography as Base



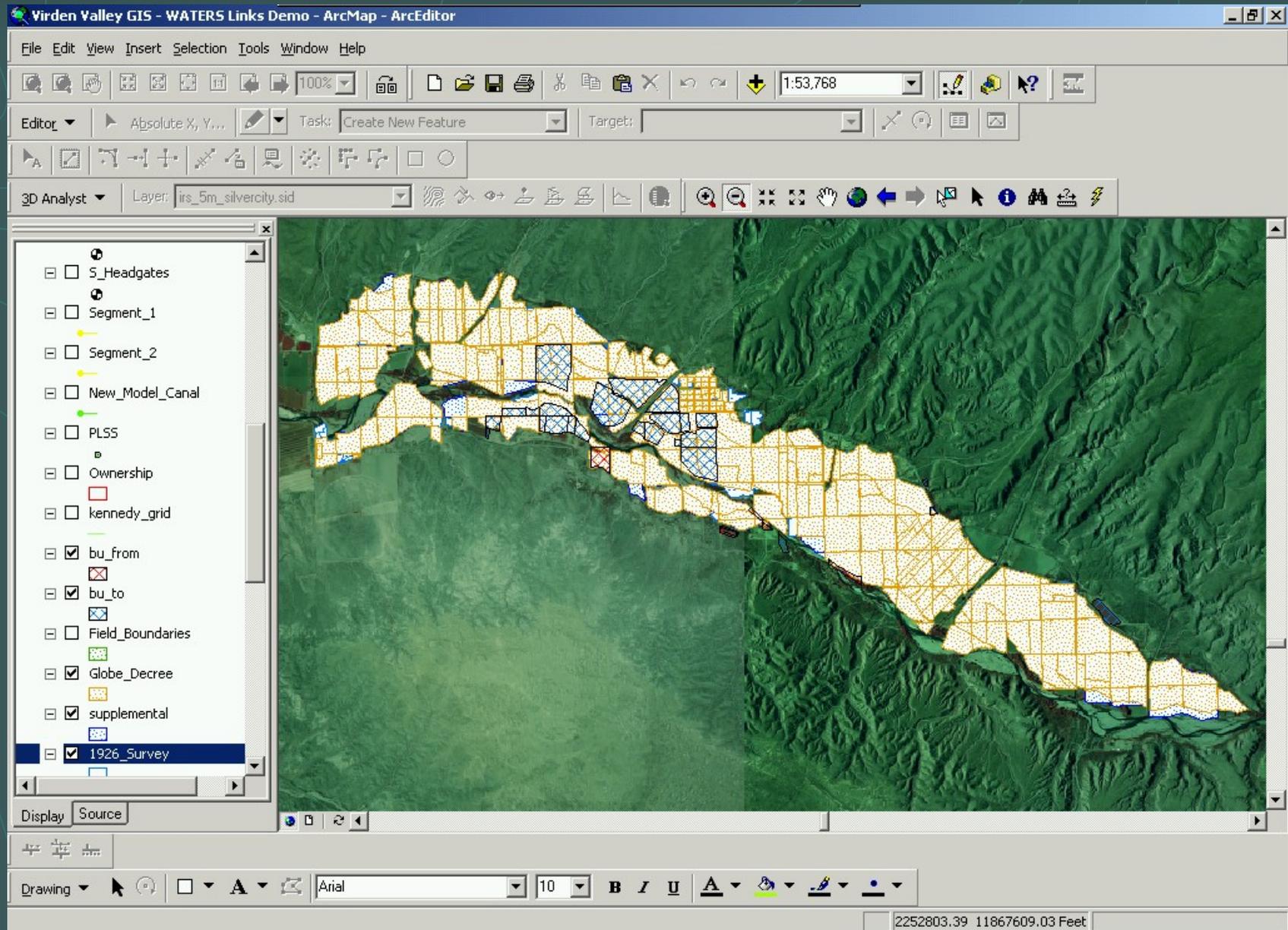
Collect and Add Field Data

The screenshot displays the ArcMap - ArcEditor interface for a project titled "Viriden Valley GIS - WATERS Links Demo". The main map area shows a topographic map with a network of water infrastructure overlaid, including wells (represented by white circles), links (yellow and red lines), roads (red lines), and canals (purple lines). The interface includes a menu bar (File, Edit, View, Insert, Selection, Tools, Window, Help), a toolbar with various GIS tools, and a Layers panel on the left. The Layers panel lists the following layers:

- Viriden_Wells
- WATERS_Primary_Ground
- WATERS_2004_Surface_L
- WATERS_Wells_Links
- Roads
- Sunset_Canal_POD
- Sunset_Sluice
- Sunset_Flow_Meter
- New_Model_Canal_POD
- NM_Sluice
- NM_Flow_Meter
- NM_Headgates

The status bar at the bottom of the window displays the coordinates: 2239874.78 11861868.17 Feet.

Digitize and Add Historical Data



Administrative Uses

The screenshot displays the ArcMap interface for a GIS project titled "Virden Valley GIS - WATERS Links Demo - ArcMap - ArcEditor". The main map area shows a topographic map with several overlaid layers: a red grid, yellow lines representing water links, and numerous white circular markers representing wells. The "Layers" panel on the left lists the following layers:

- Virден_Wells
- WATERS_Primary_Ground
- WATERS_2004_Surface_L
- WATERS_Wells_Links
- Roads
- Sunset_Canal_POD
- Sunset_Sluice
- Sunset_Flow_Meter
- New_Model_Canal_POD
- NM_Sluice
- NM_Flow_Meter

The "Identify Results" window is open, showing the details for a well with the ID "SW#27". The location coordinates are (691211.623475 3617247.465316). The attribute table for this well is as follows:

Field	Value
FID	26
Shape	Point
SURVEY_WEL	SW#27
OSE_FILE_	V V-13
ROVER_FILE	R051615B
NORTH_	3617227.038
EAST	691190.216
OWNERSHIP	Robert D. Shay
USE	Domestic/Irrigation
QUARTER	434
SECTION	1
TOWNSHIP	19 South
RANGE	21 West
PERMIT_DAT	03/25/1946
DATE_DRILL	05/1949
TOTAL_DEPT	0
WATER_DEPT	0
PRINCIPAL_	
CASING_SIZ	6
CASING_MAT	Steel Pipe

At the bottom of the interface, a status bar shows the coordinates "2256437.72 11877104.43 Feet".

Priority Review

Viriden Valley GIS - WATERS Links Demo - ArcMap - ArcEditor

File Edit View Insert Selection Tools Window Help

Attributes of WATERS_2004_Surface_Links

PRIORITY	OWNER
1874	Jon & Bethleen Swapp & Farm Credit of N.
1892	Jon & Bethleen Swapp & Farm Credit of N.
1892	Jon & Bethleen Swapp & Farm Credit of N.
1892	Jon & Bethleen Swapp & Farm Credit of N.
1881	Phelps Dodge Corporation
1881 & 1896	Phelps Dodge Corporation
1900	Phelps Dodge Corporation
1896	Phelps Dodge Corporation
1901	Phelps Dodge Corporation

Record: 1 Show: All Selected Records (1 out of 286 Selected.) Options

Layers

- Viriden_Wells
- WATERS_Primary_Ground
- WATERS_2004_Surface_L
- WATERS_Wells_Links
- Roads
- Sunset_Canal_POD
- Sunset_Sluice
- Sunset_Flow_Meter
- New_Model_Canal_POD
- NM_Sluice
- NM_Flow_Meter

Display Source

Drawing Arial 10 B I U

2242583.75 11861257.09 Feet

Selecting By Priority

Enter a WHERE clause to select records in the table window.

Method: Create a new selection

Fields:

- [OBJECTID]
- [ID]
- [FILE_]
- [SUBDIVISIO]
- [SECTION_]
- [TOWNSHIP]
- [RANGE]
- [ACREAGE]
- [PRIORITY]
- [OWNER]

Unique values:

- '1885,1898,1917'
- '1885; 1898'
- '1886 & 1893'
- '1886'
- '1886,1893'
- '1887'
- '1892 & 1874'
- '1893'

SQL Info... Complete List

SELECT * FROM WATERS.WATERS_2004_Surface_Links WHERE:
[PRIORITY] <= '1886'

Clear Verify Help Load... Save... Apply Close

New_Model_Canal_POD
 NM_Sluice
 NM_Flow_Meter

OBJECTID*	Shape*	ID	FILE_
25	Polygon	0	WV-5,WV-23,WV-26-COMB
26	Polygon	0	WV-5,WV-23,WV-26-COMB
27	Polygon	0	WV-5,WV-23,WV-26-COMB
28	Polygon	0	WV-5,WV-23,WV-26-COMB
29	Polygon	0	WV-5,WV-23,WV-26-COMB
30	Polygon	0	WV-5,WV-23,WV-26-COMB

Record: 1 Show: All Selected Records (129 out of 286 Selected) Options

Number of features selected: 129

2259726.79 11875011.39 Feet

Priority < 1886

The screenshot displays the ArcGIS interface with a map showing a network of cyan lines on a green terrain. A 'Select by Attributes' dialog box is open, showing a WHERE clause: `[PRIORITY] < '1886'`. The 'Attributes of WATERS_2004_Surface_Links' table is also visible, listing various priority values.

Select by Attributes Dialog:

Method: Create a new selection

Fields: [OBJECTID], [ID], [FILE_], [SUBDIVISIO], [SECTION_], [TOWNSHIP], [RANGE], [ACREAGE], [PRIORITY], [OWNER]

Unique values: '1885,1898,1917', '1885: 1898', '1886 & 1893', '1886', '1886,1893', '1887', '1892 & 1874', '1892'

SQL Info... Complete List

SELECT * FROM WATERS.WATERS_2004_Surface_Links WHERE:
[PRIORITY] < '1886'

Buttons: Clear, Verify, Help, Load..., Save..., Apply, Close

Attributes of WATERS_2004_Surface_Links Table:

PRIORITY
1874 & 1892
1874
1874
1874
1874 & 1892
1892
1874 & 1892
1874
1874
1892 & 1874
1881 & 1892
1874, 1881 & 1892
1874 & 1881
1874 & 1900
1874
1874

Record: 1 Show: All Selected Re

Map Scale: 1:57,409

Map Legend:

- New_Model_Canal_POD
- NM_Sluice
- NM_Flow_Meter

Map Scale: 2244228.29 11880543.01 Feet

Active Water Resource Management

New Mexico Office of the State Engineer - Microsoft Intern...

File Edit View Favorites Tools Help

← Back → Search Favorites Media

Address <http://iwaters.ose.state.nm.us:7001/iWATERS> Go Links

New Mexico Office of the State Engineer
Water Right Summary

Back

 **DB File Nbr: VV 00013**

Primary Purpose: IRR IRRIGATION
Primary Status: LIC Licensed
Total Acres: 19.45
Total Diversion: 58.35
Owner: ROBERT D. SHAY

Documents on File

Doc	File/Act	Status	1	2	3	Trans_Desc
 SUPPL	10/18/2001	PMT ET	ABS	VV	00013	S
 CLWPL	06/23/1982	PMT ET	ABS	VV	00013	
 CLWPL	06/23/1982	DMT ET	ABS	VV	00013	

Done Internet

Identify Results

Layers: <Top-most layer>

WATERS_Primary_Ground Location: (691214.709390)

W-13

Field	Value
OBJECTID	7
Shape	Polygon
ID	0
NUMBER_	7
FILE_	VV-13
WATERS_FIL	VV-13
SUBDIVISIO	PT. N1/2 NE1/4 PT.
SECTION_	12
TOWNSHIP	19 S
RANGE	21 W
ACREAGE	19.45
PRIORITY	02/09/46
OWNER	Robert D. Shay
REMARKS	also in Section 1
WATERS_URL	http://iwaters.ose.
Shape_Length	1190.273337
Shape_Area	78772.018895

Target:

1:6,633

Display Source

Display Source

Drawing  Arial 10 B I U

2267619.82 11866758.63 Feet